

CLAIMS

1. Switching device (40) intended for assembly on an electric printed circuit mounting plate (16) comprising contacts (8, 10) to be electrically connected when a switching operation is performed, the device including a
5 switch component (4) associated with an actuator (2), allowing the electrical connection to be established between said contacts when it is deflected under pressure transmitted by the actuator,

the device being characterised in that it additionally
10 includes a base plate (46) equipped with holding means (50a) for holding the switch component (4) prior to the assembly of the device on the mounting plate (16), the switch component being disengaged from these holding means when the device is assembled on the mounting plate.

15

2. Device according to claim 1, characterised in that the switch component (4) is supported only by the mounting plate (16) when the device is assembled on it, the base plate (46) then providing only a guidance function for the
20 switch component.

3. Device according to claim 1, characterised in that the switch component (4) disengages itself naturally from the holding means (50a) under the effect of a push exerted on
25 said switch component by the mounting plate (16) when the device is assembled on it.

4. Device according to claim 1, characterised in that the switch component (4) is assembled floating relative to the

base plate (46) between an initial position in which the switch component is stopped against the holding means (50a) and a second position in which it is disengaged from the holding means, this second position being adopted
5 automatically through the installation the device on the mounting plate (16).

5. Device according to claim 1, characterised in that the switch component (4) includes at least one appendage (48)
10 the free end of which forms a hook (48a), the holding means having a stop (50a) for the hook that prevents the switch component from being withdrawn via the surface of the base plate (16) turned towards the mounting plate (16).

15 6. Device according to claim 5, characterised in that the appendage is a resilient segment (48) starting from one corner (4a) of the switch component (4) and the end of which is supported against an internal bearing surface (50b) of the base plate (46), allowing the switch component
20 to be guided relative to the base plate.

7. Device according to claim 1, characterised in that the base plate (46) forms a frame around the switch component (4), and in that the peripheral wall of the frame has a
25 contact edge (46c) intended to be supported against the mounting plate (16) when the device is assembled on it.

8. Device according to claim 7, characterised in that the contact edge (46c) constitutes a seal protecting the
30 internal part (6).

9. Device according to claim 7, characterised in that the peripheral wall has an edge (46b), opposite the contact edge (46c), intended to receive a base portion (2a) of the actuator (2).

5

10. Device according to 1, characterised in that the actuator (2) is a revolution part.

10 11. Device according to claim 1, characterised in that it additionally includes a connection part (42) intended on the one hand to hold the actuator (2) on the base plate (46) and on the other hand to ensure the assembly of the device on the mounting plate (16).

15 12. Device according to claim 11, characterised in that the connection part (42) anchors the device to the mounting plate (16) via gripping means (52) that anchor the device to the mounting plate without welding.

20 13. Device according to claim 12, characterised in that the gripping means (52) form snap-on means intended to pass through at least one hole (44) in the mounting plate (16) and to be anchored against its surface opposite that on which the device is assembled.

25

14. Device according to claim 11, characterised in that the connection part (42) holds a base portion (2a) of the actuator (2) in a sandwich against the base plate (46).

30 15. Device according to claim 11, characterised in that the connection part (42) includes at least one pin (23) the end

of which forms a means (54) for anchoring to the mounting plate (16), and one part of which incorporates fastening means (32a) intended to engage with fastening means (53) connected to the base plate (46).

5

16. Device according to claim 1, characterised in that the base plate (46) is made in a single piece of flexible plastic material or elastomer.

10 17. Device according to claim 1, characterised in that said switch component (4) is presented in the form of a dome, particularly a blister dome, preferably or metal or metallized allowing the electrical connection to be provided.

15

18. Process for manufacturing a switching device (40), characterised in that at least one of the parts among the group including:

- the connection component (42),
- 20 - the switch component (4), and
- the base plate (46),

is manufactured on a bearing strip, and in that said part is connected to the bearing strip during assembly of the device, said bearing strip being also used as a means
25 for packaging the part between its manufacture and the assembly of the device.

19. Process according to claim 18, characterised in that each of the parts (42, 2, 4, 46) of said group is made on a
30 respective bearing strip.

20. Process according to claim 18, characterised in that the bearing strip of one of the parts of said group is additionally used for the packaging of the device (40) once it is assembled.

5

21. Process according to claim 20, characterised in that the bearing strip being used to package the assembled device (40) is used to supply a tool for assembling the device on its mounting plate (16), this tool being of the strip feed type.

10

22. Process according to claim 18, implementing a connection part (42) according to claim 15, characterised in that it includes the steps of:

15

- orientating the pins (23) flared relative to the central axis (A) of the connection part, the flare being in the direction of separation from this axis towards their free end,

- joining the connection part to the base plate (46), whether or not it is fitted with the switch component (4), and

20

- connecting the whole by orientating the branches parallel to the central axis (A), so as to bring the fastening means (23a) into their respective housing (53) of

25

the base plate.